FORM PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office	Attorney Docket No.: COOL-02000	Serial No.: 10/680,324
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use Several Sheets If Necessary)		Applicants: James Gill Shook et al.	
(37 CFR § 1.98(b))		Filing Date: October 6, 2003	Group Art Unit: 3743

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FOREIGN PATENTS OR PUBLISHED FOREIGN PATENT APPLICATIONS

		Document Number	Publication Date	Country / Patent Office	Class	Subclass	Translation Yes	Translation No
JW	AA	97212126.9	03/04/97	CN	B01D	61/42		X
JW	AB	2000-277540	10/06/00	JP	H01L	21/50		X

OTHER DOCUMENTS (Including Author, Title, Date, Relevant Pages, Place of Publication)

TW	AC	Stephen C. Jacobson et al., " Fused Quartz Substrates for Microchip Electrophoresis", Analytical Chemistry, Vo. 67, No. 13, July 1, 1995, pages 2059-2063.
TW	AD	Kendra V. Sharp et al., "Liquid Flows in Microchannels", 2002, Vol. 6, pages 6-1 to 6-38.
TW	AE	Shuchi Shoji et al., " Microflow devices and systems", J. Microcech. Microeng. 4 (1994), pages 157-171, printed in the U.K.
TW	AF	Angela Rasmussen et al., "Fabrication Techniques to Realize CMOS-Compatible Microfluidic Microchannels", Journal of Microelectromechanical, Vo. 10, No. 2, June 2001, pages 286-297.
TW	AG	J. H. Wang et al., "Thermal-Hydraulic Characteristic of Micro Heat Exchangers", 1991, DSC-Vol. 32, Micromechanical Sensors, Actuators, and Systems, pages 331-339.
TW	AH	Gad Hetsroni et al., "Nonuniform Temperature Distribution in Electronic Devices Cooled by Flow in Parallel Microchannels", IEEE Transactions on Components and Packaging Technologies, March 2001, Vol. 24, No. 1, pages 16-23.
TW	AI	X. F. Peng et al., "Heat Transfer Characteristics of Water Flowing through Microchannels", Experimental Heat Transfer An International Journal, Vol. 7, No. 4, October-December 1994, pages 265-283.
TW	AJ	Linan Jiang et al., "Forced Convection Boiling in a Microchannel Heat Sink", Journal of Microelectromechanical Systems, Vol. 10, No. 1, March 2001, pages 80-87.
TW	AK	Muhammad M. Rahman et al., "Experimental Measurements of Fluid Flow and Heat Transfer in Microchannel Cooling Passages in a Chip Substrate", 1993, EEP-Vol. 4-2, Advances in Electronic Packages, pages 685-692.
TW	AL	X. F. Peng et al., "Forced convection and flow boiling heat transfer for liquid flowing through Microchannels", 1993, Int. J. Heat Mass Transfer, Vol. 36, N0. 14, pages 3421-3427.
TW	AM	Lung-Jieh Yang et al., "A Micro Fluidic System of Micro Channels with On-Site Sensors by Silicon Bulk Micromaching", September 1999, Microfluidic Devices and Systems II, Vol. 3877, pages 267-272.
TW	AN	G. Mohiuddin Mala et al., "Heat transfer and fluid flow in microchannels", 1997, Int. J. Mass transfer, Vol. 40, No. 13, pages 3079-3088, printed in Great Britain.
TW	AO	J. M. Cuta et al., "Fabrication and Testing of Micro-Channel Heat Exchangers", SPIE Microlithography and Metrology in Micromaching, Vol. 2640, 1995, pages 152-160.
TW	AP	Linan Jiang et al., "A Micro-Channel Heat Sink with Integrated Temperature Sensors for Phase Transition Study", 1999, 12th IEEE International Conference on Micro Electro Mechanical Systems, pages 159-164.
TW	AQ	Linan Jiang et al., "Fabrication and characterization of a microsystem for a micro-scale heat transfer study", J. Micromech. Microeng. 9 (1999) pages 422-428, printed in the U.K.
TW	AR	M. B. Bowers et al., "High flux boiling in low flow rate, low pressure drop mini-channel and micro-channel heat sinks", 1994, Int. J. Heat Mass Transfer, Vol. 37, No. 2, pages 321-332.
TW	AS	Yongendra Joshi, "Heat out of small packages", December 2001, Mechanical Engineer, pages 56-58.
TW	AT	A. Rostami et al., "Liquid Flow and Heat Transfer in Microchannels: a Review", 2000, Heat and Technology, Vol. 18, No. 2, pages 59-68.
TW	AU	Lian Zhang et al., "Measurements and Modeling of Two-Phase Flow in Microchannels with Nearly Constant Heat Flux Boundary Conditions", Journal of Microelectromechanical Systems, Vol.11, No. 1, February 2002, pages12-19.
TW	AV	Muhammad Mustafizur Rahman, "Measurements of Heat Transfer in Microchannel Heat Sinks", Int. Comm. Heat Mass Transfer, Vol. 27, No. 4, May 2000, pages 495-506.
TW	AW	Issam Mudawar et al., "Enhancement of Critical Heat Flux from High Power Microelectronic Heat Sources in a Flow Channel", Journal of Electronic Packaging, September 1990, Vol. 112, pages 241-248.
TW	AX	Nelson Kuan, "Experimental Evaluation of Micro Heat Exchangers Fabricated in Silicon", 1996, HTD-Vol. 331, National Heat Transfer Conference, Vol. 9, pages 131-136.
TW	AY	E. W. Kreutz et al., "Simulation of micro-channel heat sinks for optoelectronic microsystems", Microelectronics Journal 31(2000) pages 787-790.
TW	AZ	J. C. Y. Koh et al., "Heat Transfer of Microstructure for Integrated Circuits", 1986, Int. Comm. Heat Mass Transfer, Vol. 13, pages 89-98.
TW	BA	Snezana Konecni et al., "Convection Cooling of Microelectronic Chips", 1992, InterSociety Conference on Thermal Phenomena, pages 138-144.

Examiner: T. Walberg	Date Considered: 8/5/05

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		OTHER DOCUMENTS (Including Author, Title, Date, Relevant Pages, Place of Publication)
TW	BB	Michael B. Kleiner et al., "High Performance Forced Air Cooling Scheme Employing Microchannel Heat Exchangers", 1995, IEEE Transactions on Components, Packaging, and Manufacturing Technology-Part A, Vol. 18, No. 4, pages 795-804.
TW	BC	Jerry K. Keska Ph. D. et al., "An Experimental Study on an Enhanced Microchannel Heat Sink for Microelectronics Applications", EEP-Vol. 26-2, Advances in Electronic Packaging, 1999, Vol. 2, pages 1235-1259.
TW	BD	Shung-Wen Kang et al., "The Performance Test and Analysis of Silicon-Based Microchannel Heat Sink", July 1999, Terahertz and Gigahertz Photonics, Vol. 3795, pages 259-270.
TW	BE	Joseph C. Tramontana, "Semiconductor Laser Body Heat Sink", Xerox Disclosure Journal, Vol. 10, No. 6, November/December 1985, pages 379-381.
TW	BF	Sarah Arulanandam et al., " Liquid transport in rectangular microchannels by electroosmotic pumping", Colloid and Surfaces A: Physicochemical and Engineering Aspects 161 (2000), pages 89-102.
TW	BG	Jeffery D. Barner et al., "Thermal Ink Jet Print Head Carriage with Integral Liquid Cooling Capabilities", Xerox Disclosure Journal-Vol. 21, No. 1, January/February 1996, pages 33-34.
TW	BH	"Autonomous displacement of a solution in a microchannel by another solution", Research Disclosure, June 2001, pages 1046-1047.
TW	BI	John M. Waldvogel, "Aluminum Silicon Carbide Phase Change Heat Spreader", Motorola, June 1999, Technical Developments, pages 226-230.
TW	BJ	James P. Slupe et al., "An idea for maintaining a stable thermal environment for electronic devices", Research Disclosure, August 2001, page 1312.
TW	BK	John M. Waldvogel, "A Heat Transfer Enhancement Method for Forced Convection Bonded-Fin Heatsinks", Motorola, December 1997, Technical Developments, pages 158-159.
TW	BL	"Thin Heat Pipe for Cooling Components on Printed Circuit Boards", IBM Technical Disclosure Bulletin, Vol. 34, No. 7B, December 1991, pages 321-322.
TW	BM	R. C. Chu et al., "Process for Nucleate Boiling Enhancement", IBM Technical Disclosure Bulletin, Vol. 18, No. 7, December 1975, page 2227.
TW	BN	J. Riseman, "Structure for Cooling by Nucleate Boiling", IBM Technical Disclosure Bulletin, Vol. 18, No. 11, April 1976, page 3700.
TW	BO	"Integrally Grooved Semiconductor Chip and Heat Sink", October 1971, IBM Technical Disclosure Bulletin, Vol. 14, No. 5, page 1425.
TW	BP	"Enhanced Cooling of Thermal Conduction Module", IBM Technical Disclosure Bulletin, Vol. 30, No. 5, October 1987, page 426.
TW	BQ	"Heat Exchanger Modules for Data Process with Valves Operated by Pressure form Cooling Water Pump", IBM Technical Disclosure Bulletin, Vol. 30, No. 5, October 1987, page 419.
TW	BR	"Cold Plate for Thermal Conduction Module with Inlet for Cooling Water Near Highest Power Chips", IBM Technical Disclosure Bulletin, Vol. 30, No. 5, October 1987, page 413.
TW	BS	"Circuit Module Cooling with Coaxial Bellow Providing Inlet, Outlet and Redundant Connections to Water-Cooled Element", IBM Technical Bulletin, Vol. 30, No. 5, October 1987, pages 345-347.
TW	BT	"Piping System with Valves Controlled by Processor for Heating Circuit Modules in a Selected Temperature Profile for Sealing Integrity Test Under Temperature Stress", IBM Technical Disclosure Bulletin, Vol. 30, No. 5, October 1987, page 336.
TW	BU	"Cooling System for Chip Carrier on Card", IBM Technical Disclosure Bulletin, Vol. 31, No. 4, September 1988, pages 39-40.
TW	BV	"Chip Cooling Device", IBM Technical Disclosure Bulletin, Vol. 30, No. 9, February 1988, pages 435-436.
TW	BW	W. E. Ahearn et al., "Silicon Heat Sink Method to Control Integrated Circuit Chip Operating Temperatures", IBM Technical Disclosure Bulletin, Vol. 21, No. 8, January 1979, pages 3378-3380.
TW	BX	N. P. Bailey et al., "Cooling Device for Controlled Rectifier", IBM Technical Disclosure Bulletin, Vol. 21, No. 11, April 1979, pages 4609-4610.
TW	BY	W. J. Kleinfelder et al., "Liquid-Filled Bellows Heat Sink", IBM Technical Disclosure Bulletin, Vol. 21, No. 10, March 1979, pages 4125-4126.
TW	BZ	R. P. Chrisfield et al., "Distributed Power/Thermal Control", IBM Technical Disclosure Bulletin, Vol. 22, No. 3, August 1979, pages 1131-1132.
TW	CA	A. J. Arnold et al., "Heat Sink Design for Cooling Modules in a Forced Air Environment", IBM Technical Disclosure Bulletin, Vol. 22, No. 6, November 1979, pages 2297-2298.
TW	CB	A. J. Arnold, "Structure for the Removal of Heat from an Integrated Circuit Module", IBM Technical Disclosure Bulletin, Vol. 22, No. 6, November 1979, pages 2294-2296.
TW	CC	U. P. Hwang et al., "Cold Plate for Thermal Conduction Module with Improved Flow Pattern and Flexible Base", IBM Technical Disclosure Bulletin, Vol. 25, No. 9, February 1983, page 4517.
TW	CD	K. C. Gallagher et al., "Cooling System for Data Processor with Flow Restricter in Secondary Loop to Limit Bypass-Cooling Water Flow", IBM Technical Disclosure Bulletin, Vol. 26, No. 5, October 1983, page 2658.

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OTHER DOCUMENTS (Including Author, Title, Date, Relevant Pages, Place of Publication)

TW	CE	R. C. Chu et al., "Silicon Heat Sink for Semiconductor Chip", IBM Technical Disclosure Bulletin, Vol. 24, No. 11A, April 1982, page 5743.
TW	CF	J. M. Eldridge et al., "Heat-Pipe Vapor Cooling Etched Silicon Structure", IBM Technical Disclosure Bulletin, Vol. 25, No. 8, January 1983, pages 4118-4119.
TW	CG	J. R. Skobern, "Thermoelectrically Cooled Module", IBM Technical Disclose Bulletin, Vol. 27, No. 1A, June 1984, page 30.
TW	CH	M. J. Brady et al., "Etched Silicon Integrated Circuit Heat Sink", IBM Technical Disclosure Bulletin, Vol. 27, No. 1B, June 1984, page 627.
TW	CI	H. D. Edmonds et al., "Heat Exchange Element for Semiconductor Device Cooling", IBM Technical Disclosure Bulletin, Vol. 23, No. 3, August 1980, page 1057.
TW	CJ	R. W. Noth, "Heat Transfer from Silicon Chips and Wafers", IBM Technical Disclosure Bulletin, Vol.17, No. 12, May 1975, page 3544.
TW	CK	"Forced Boiling Cooling System with Jet Enhancement for Crititical Heat Flux Extension", IBM Technical Disclosure Bulletin, Vol.39, No. 10, October 1996, page 143.
TW	CL	"Miniature Heat Exchanger for Corrosive Media", IBM Technical Disclosure Bulletin, Vol. 38, No. 01, January 1995, pages 55-56.
TW	CM	"Self-Contained Active Heat Dissipation Device", IBM Technical Disclosure Bulletin Vol. 39, No. 04, April 1996, pages 115-116.
TW	CN	C. J. Keller et al., "Jet Cooling Cup for Cooling Semiconductor Devices", IBM Technical Disclosure Bulletin, Vol. 20, No. 9, February 1978, pages 3575-3576.
TW	CO	B. J. Ronkese, "Centerless Ceramic Package with Directly Connected Heat Sink", IBM Technical Disclosure Bulletin, Vol. 20, No. 9, February 1978, page 3577-3578.
TW	CP	K. S. Sachar, "Liquid Jet Cooling of Integrated Circuit Chips", Vol. 20, No. 9, February 1978, pages 3727-3728.
TW	CQ	A. H. Johnson, "Device Cooling", IBM Technical Disclosure Bulletin, Vol. 20, No. 10, March 1978, pages 3919-3920.
TW	CR	A. L. Pacuzzo et al., "Integrated Circuit Module Package Cooling Structure", IBM Technical Disclosure Bulletin, Vol. 20, No. 10, March 1978, pages 3898-3899.
TW	CS	R. D. Durand et al., "Flexible Thermal Conductor for Electronic Module", IBM Technical Disclosure Bulletin, Vol. 20, No. 11A, April 1978, page 4343.
TW	CT	D. Balderes et al., " Liquid Cooling of a Multichip Module Package", IBM Technical Disclosure Bulletin, Vol. 20, No. 11A, April 1978, pages 4336-4337.
TW	CU	J. A. Dorler et al., "Temperature Triggerable Fluid Coupling System for cooling Semiconductor Dies", IBM Technical Disclosure Bulletin, Vol. 20, No. 11A, April 1978, pages 4386-4388.
TW	CV	V. W. Antonetti et al., "Integrated Module Heat Exchanger", IBM Technical Disclosure Bulletin, Vol. 20, No. 11A, April 1978, page 4498.
TW	CW	P. Hwang et al., "Conduction Cooling Module", IBM Technical Disclosure Bulletin, Vol. 20, No. 11A, April 1978, pages 4334-4335.
TW	CX	A. J. Arnold, "Electronic Packaging Structure", IBM Technical Disclosure Bulletin, Vol. 20, No. 11B, April 1978, pages 4820-4822.
TW	CY	V. Y. Doo et al., "High Performance Package for Memory", IBM Technical Disclosure Bulletin, Vol. 21, No. 2, July 1978, pages 585-586.
TW	CZ	"Multi-Chip Package with Cooling by a Spreader Plate in Contact with a Chip having Cylindrical Holes Mating with an Inverse Frame Providing Water Flow Within its Pins", IBM Technical Disclosure Bulletin, Vol. 31, No. 5, October 1988, pages 141-142.
TW	DA	J. Landrock et al., "Cooling System for Semiconductor Chips", IBM Technical Disclosure Bulletin, Vol. 23, No. 4, September 1980, page 1483.
TW	DB	E. P. Damm, Jr., "Convection Cooling Apparatus", IBM Technical Disclosure Bulletin, Vol. 20, No. 7, December 1977, pages 2755-2756.
TW	DC	"Circuit Package with Circulating Boiling Liquid and Local Heat Exchanger to Limit Vapor in Coolant Outlet", IBM Technical Disclosure Bulletin, Vol. 31, No. 12 May 1989, page 34.
TW	DD	"Circuit Module Cooling with Multiple Pistons Contacting a Heat Spreader/Electrical Buffer Plate in Contact with Chip", IBM Technical Disclosure Bulletin, Vol. 31, No. 12, May 1989, page 5-7.
TW	DE	"TCM-LIKE Circuit Module with Local Heat Sink Resting on Chip and Chip Separated From Coolant by Bellows with Pins and Deflector Plate Attached to Local Heat Sink and Extending Above Bellows into Region of Coolant Flow", IBM Technical Disclosure Bulletin, Vol. 31, No. 11, pages 305-306.
TW	DF	"Water-Cooled Circuit Module with Grooves Forming Water Passages Near Heat-Producing Devices", IBM Technical Disclosure Bulletin, Vol. 31, No. 12, May 1989, pages 49-50.
TW	DG	"Cold Plate for Thermal conduction Module with Only Peripheral Mounting bolts, Large Surface Area Fin Inserts and Reduced Water Flow and Thermal Resistances", IBM Technical Disclosure Bulletin, Vol. 31, No. 12, May 1989, page 59.

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		OTHER DOCUMENTS (Including Author, Title, Date, Relevant Pages, Place of Publication)
TW	DH	"Thermal Control Hardware for Accelerated Run-In Testing of Multi-Chip Modules", IBM Technical Disclosure Bulletin, Vol. 32, No. 5A, October 1989, page 129-130.
TW	DI	"Means of Removing More Heat From a TCM (Or Other Liquid-Cooled Logic Package) By Reducing the Coolant Temperature", IBM Technical Disclosure Bulletin, Vol. 32 No. 5A, Oct 1989, pages 153-154.
TW	DJ	E. G. Loeffel et al., "Liquid Cooled Module with Compliant Membrane", IBM Technical Disclosure Bulletin, Vol. 20, No. 2, July 1977, pages 673-674.
TW	DK	V. Y. Doo et al., "Method of Effective Cooling of a High Power Silicon Chip", IBM Technical Disclosure Bulletin, Vol. 20, No. 4, September 1977, page 1436-1437.
TW	DL	V. Y. Doo et al., "Semiconductor Chip Cooling Package, IBM Technical Disclosure Bulletin, Vol. 20, No. 4, September 1977, pages 1440-1441.
TW	DM	"Heat Sink Fabrication Method", IBM Technical Disclosre Bulletin, Vol. 27, No. 10A, March 1985, page 5656-5657.
TW	DN	"Thermal Conduction Module with Liquid Dielectric and Pistons with Surface Treatment for Enhanced Nucleate Boiling", IBM Technical Disclosure Bulletin, Vol. 27, No. 12, May 1985, page 6904.
TW	DO	"Pin Fin Array Heat Pipe Apparatus", IBM Technical Disclosure Bulletin, Vol. 37, No. 09, September 1994, page 171.
TW	DP	Youngcheol Joo et al., "Fabrication of Monolithic Microchannels for IC Chip Cooling", 1995, IEEE Micro Electro Mechanical Systems, pages 362-367.
TW	DQ	Jaisree Moorthy et al., Active control of electroosmotic flow in microchannels using light, January 26, 2001, Sensors and Actuators B.75, pages 223-229.
TW	DR	Andreas Manz et al., Electroosmotic pumping and electrophoretic separations for miniaturized chemical analysis systems, September 16, 1994, J.Micromech. Microeng. 4 (1994), pages257-265, printed in the U.K.
TW	DS	E. B. Cummings et al., Irrotationality of uniform electroosmosis, September 1999, Part of the SPIE Conference on Microfluidic Devices and Systems II, SPIE Vol. 3877, pages 180-189
TW	DT	Stephen C. Jacobson et al., Fused Quartz Substrates for Microchip Electrophoresis, July 1, 1995, Analytical Chemistry, Vol. 67, No. 13, pages 2059-2063.
TW	DU	Haim H. Bau, Optimization of conduits' shape in micro heat exchangers, December 10, 1997, International Journal of Heat and Mass Transfer 41 (1998), pages 2717-2723.
TW	DV	V. K. Dwivedi et al., Fabrication of very smooth walls and bottoms of silicon microchannels for heat dissipation of semiconductor devices, January 25, 2000, Microelectronics Journal 31 (2000), pages 405-410.
TW	DW	M. B. Bowers et al., Two-Phase Electronic Cooling Using Mini-Channel and Micro-Channel Heat Sinks: Part 2-Flow Rate and Pressure Drop Constraints, December 1994, Journal of Electronic Packaging 116, pages 298-305.
TW	DX	Meint J. de Boer et al., Micromachining of Buried Micro Channels in Silicon, March 2000, Journal of Microelectromechanical systems, Vol. 9, No. 1, pages 94-103.
TW	DY	S.B. Choi et al., FLUID FLOW AND HEAT TRANSFER IN MICROTUBES, 1991, DSC-vol. 32, Micromechanical sensors, Actuators, and Systems, ASME 1991, pages 123-134.
TW	DZ	S. F. Choquette, M. Faghri et al., OPTIMUM DESIGN OF MICROCHANNEL HEAT SINKS, 1996, DSC-Vol. 59, Microelectromechanical Systems (MEMS), ASME 1996, pages 115-126.
TW	EA	David Copeland et al., MANIFOLD MICROCHANNEL HEAT SINKS: THEORY AND EXPERIMENT, 1995, EEP-Vol. 10-2, Advances in Electronic Packaging ASME 1995, pages 829-835.
TW	EB	J. M. Cuta et al., FORCED CONVECTION HEAT TRANSFER IN PARALLEL CHANNEL ARRAY MICROCHANNEL HEAT EXCHANGER, 1996, PID-Vol. 27 HTD-Vol. 338, Advances in Energy efficiency, Heat/Mass Transfer Enhancement, ASME 1996, pages 17-23
TW	EC	K. Fushinobu et al., HEAT GENERATION AND TRANSPORT IN SUB-MICRON SEMICONDUCTOR DEVICES, 1993, HTD-Vol. 253, Heat Transfer on the Microscale, ASME 1993, pages 21-28.
TW	ED	Charlotte Gillot et al., Integrated Micro Heat Sink for Power Multichip Module, September 3, 1999, IEEE Transactions on Industry Applications, Vol. 36. NO. 1. January/February 2000, pages217-221
TW	EE	John Gooding, Microchannel heat exchangers - a review, SPIE Vol. 1997 High Heat Flux Engineering II (1993), pages 66-82.
TW	EF	Koichiro Kawano et al., Micro Channel Heat Exhanger for Cooling Electrical Equipment, HTD-Vol. 361-3/PID-Vol. 3, Proceeding of the ASME Heat Transfer Division - Volume 3, ASME 1998, pages173-188.
TW	EG	Chad Harris et al., Design and Fabrication of a Cross Flow Micro Heat Exchanger, December 2000, Journal of Microelectromechanical Systems, Vol. 9, No. 4, pages 502-508.

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TW	EH	George M. Harpole et al., MICRO-CHANNEL HEAT EXCHANGER OPTIMIZATION, 1991, Seventh IEEE SEMI-THERM Symposium, pages59-63.
TW	EI	Pei-Xue Jiang et al., Thermal-hydraulic performance of small scale micro-channel and prous-media heat-exchangers, 2001, International Journal of Heat and Mass Transfer 44 (2001), pages 1039-1051.
TW	EJ	X.N. Jiang et al., Laminar Flow Through Microchannels Used for Microscale Cooling Systems, 1997, IEEE/CPMT Electronic Packaging Technology Conference, pages 119-122, Singapore.
TW	EK	David Bazeley Tuckerman, Heat-Transfer Microstructures for Integrated Circuits, February 1984, pages ii-xix, pages 1-141.
TW	EL	M Esashi, Silicon micromachining for integrated microsystems, 1996, Vacuum/volume 47/numbers 6-8/pages 469-474.
TW	EM	T.S. Raviguruajan et al., Effects of Heat Flux on Two-Phase Flow characteristics of Refrigerant Flows in a Micro-Channel Heat Exchanger, HTD-Vol. 329, National Heat Transfer Conference, Volume 7, ASME 1996, pages 167-178.
TW	EN	T.S. Ravigruruajan et al., Single-Phase Flow Thermal Performance Characteristics of a Parallel Micro-Channel Heat Exchanger, 1996, HTD-Vol. 329, National Heat Transfer Conference, Volume 7, ASME 1996, pages 157-166
TW	EO	T.S. Ravigururajan et al., Liquid Flow Characteristics in a Diamond-Pattern Micro-Heat-Exchanger, DSC-Vol. 59 Microelectromechanical Systems (MEMS), ASME 1996, pages 159-166
TW	EP	T.S. Raviguruajan, Impact of Channel Geometry on Two-Phase Flow Heat Transfer Characteristics of Refrigerants in Microchannel Heat Exchangers, May 1998, Journal of Heat Transfer, Vol. 120, pages 485-491
TW	EQ	J. Pfahler et al., Liquid Transport in Micron and Submicron Channels, March 1990, Sensors and Actuators, A21-A23 (1990), pages 431-434.
TW	ER	Kenneth Pettigrew et al., Performance of a MEMS based Micro Capillary Pumped Loop for Chip-Level Temperature Control, 2001, The 14th IEEE International Conference on Micro Electro Mechanical Systems, pages 427-430.
TW	ES	C. Perret et al., Microchannel integrated heat sinks in silicon technology, October 12-15, 1998, The 1998 IEEE Industry Applications Conference, pages 1051-1055.
TW	ET	X.F. Peng et al., Convective heat transfer and flow friction for water flow in microchannel structures, 1996, Int. J. Heat Mass Transfer, Vol. 39, No. 12, pages 2599-2608, printed in Great Britain.
TW	EU	X.F. Peng et al., Experimental investigation of heat transfer in flat plates with rectangular microchannels, 1994, Int. J. Heat Mass Transfer, Vol. 38, No. 1, pages 127-137, printed in Great Britain.
TW	EV	X.F. Peng et al., Cooling Characteristics with Microchanneled Structures, 1994, Enhanced Heat Transfer, Vol. 1, No. 4, pages 315-326, printed in the United States of America.
TW	EW	Yoichi Murakami et al., Parametric Optimization of Multichananneled Heat Sinks for VLSI Chip Cooling, March 2002, IEEE Transaction on Components and Packaging Technologies, Vol. 24, No. 1, pages 2-9.
TW	EX	D. Mundinger et al., High average power 2-D laser diode arrays or silicon microchannel coolers, CLEO '89/Friday Morning/404.
TW	EY	L.J. Missaggia et al., Microchannel Heat Sinks for Two-Dimensional High-Power-Density Diode Laser Arrays, 1989, IEEE Journal of Quantum Electronics, Vol. 25, No. 9, September 1989, pages1989-1992.
TW	EZ	M.J. Marongiu et al., Enhancement of Multichip Modules (MCMs) Cooling by Incorporating MicroHeatPipes and Other High Thermal Conductivity Materials into Microchannel Heat Sinks, 1998, Electronic Components and Technology Conference, pages 45-50
TW	FA	C.R. Friedrich et al., Micro heat exchangers fabricated by diamond machining, January 1994, Precision Engineering, Vol. 16, No. 1, pages56-59
TW	FB	Mali Mahalingam, Thermal Management in Semiconductor Device Packaging, 1985, Proceedings of the IEEE, Vol. 73, No. 9, September 1985, pages 1396-1404.
TW	FC	T.M. Adams et al., An experimental investigation of single-phase forced convection in microchannels, 1997, Int. J. Heat Mass Transfer, Vol. 41, Nos. 6-7, pages 851-857, Printed in Great Britain.
TW	FD	T.M. Adams et al., Applicability of traditional turbulent single-phase forced convection correlations to non-circular micrhchannels, 1999, Int. J. Heat and Transfer 42 (1999) pages 4411-4415.
TW	FE	Bassam Badran et al., Experimental Results for Low-Temperature Silicon Micromachined Micro Heat Pipe Arrays Using Water and Methanol as Working Fluids, May 31, 1997, Experimental Heat Transfer, 10: pages 253-272.
TW	FF	D. Jed Harrison et al., Electroosmotic Pumping Within A Chemical Sensor System Integrated on Silicon, Session C9 Chemical Sensors and Systems for Liquids, June 26, 1991, pages 792-795.
TW	FG	Kurt Seller et al., Electroosmotic Pumping and Valveless Control of Fluid Flow within a Manifold of Capillaries on a Glass Chip, 1994, Analytical Chemistry, Vol. 66, No. 20, October 15, 1994, pages 3485-3491.
TW	FH	Philip H. Paul et al., Electrokinetic Generation of High Pressures Using Porous Microstructures, 1998, Micro-Total Analysis Systems, pages 49-52.
TW	FI	Gh. Mohiuddin Mala et al., Flow characteristics of water through a microchannel between two parallel plates with electrokinetic effects, 1997, Int. J. Heat and Fluid Flow, Vol. 18, No. 5, pages489-496

Examiner:		Date Considered:	9/5/05

EXAMINER: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FORM PTO-1449 (Modified) U.S. Department of Commerce Patent and Trademark Office	Attorney Docket No.: COOL-02000	Serial No.: 10/680,324
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use Several Sheets If Necessary)	Applicant: James Gill Shook et al.	
(37 CFR § 1.98(b))	Filing Date: October 6, 2003	Group Art Unit: 3743

		OTHER DOCUMENTS (Including Author, Title, Date, Relevant Pages, Place of Publication)
TW	FJ	W.E. Morf et al., Partial electroosmotic pumping in complex capillary systems Part 1: Principles and general theoretical approach, October 16, 2000, Sensors and Actuators B 72 (2001), pages 266-272.
TW	FK	M. Esashi, Silicon micromachining and micromachines, September 1, 1993, Wear, Vol. 168, No. 1-2, (1993), pages 181-187.
TW	FL	Stephanus Buttgenbach et al., Microflow devices for miniaturized chemical analysis systems, November 4-5, 1998, SPIE-Chemical Microsensors and Applications, Vol. 3539, pages 51-61.
TW	FM	Sarah Arunlanandam et al., Liquid transport in rectangular microchannels by electroosmotic pumping, 2000, Colloids and Surfaces A: Physicochemical and Engineering Aspects Vol. 161 (2000), pages 89-102.
TW	FN	Linan Jiang et al., Closed-Loop Electroosmotic Microchannel Cooling System for VLSI Circuits, Mechanical Engineering Dept. Stanford University, pages 1-27.
TW	FO	Susan L. R. Barker et al., Fabrication, Derivatization and Applications of Plastic Microfluidic Devices, Proceedings of SPIE, Vol. 4205. November 5-8, 2000, pages 112-118.
TW	FP	Timothy E. McKnight et al., Electroosmotically Induced Hydraulic Pumping with Integrated Electrodes on Microfluidic Devices, 2001, Anal. Chem., Vol. 73, pages 4045-4049.
TW	FQ	Chris Bourne, Cool Chips plc RECEIVES NANOTECH MANUFACTURING PATENT, July 31, 2002, pages 1-2.
TW	FR	Frank Wagner et al., Electroosmotic Flow Control in Micro Channels Produced by Scanning Excimer Laser Ablation , 2000, Proceedings of SPIE Vol. 4088, June 14-16, 2000, pages 337-340.
TW	FS	H. A. Goodman, Data Processor Cooling With Connection To Maintain Flow Through Standby Pump, December 1983, IBM Technical Disclosure Bulletin, Vol. 26, No. 7A, page 3325.
TW	FT	Electroerosion Micropump, May 1990, IBM Technical Disclosure Bulletin, Vol. 32, No. 12, pages 342-343.
TW	FU	Shulin Zeng et al., Fabrication and Characterization of Electrokinetic Micro Pumps, 2000 Inter Society Conference on Thermal Phenomena, pages 31-35.
TW	FV	A. Manz et al., Integrated Electoosmotic Pumps and Flow Manifolds for Total Chemical Analysis System, 1991, Inter. Conf. on Solid-State Sensors and Actuators, pages 939-941.
TW	FW	O. T. Guenat et al., Partial electroosmotic pumping in complex capillary systems Part: 2 Fabrication and application of a micro total analysis system suited for continuous volumetric nanotitrations, October 16, 2000, Sensors and Actuators B 72 (2001) pages 273-282.
TW	FX	J. G. Sunderland, Electrokinetic dewatering and thickening. I. Introduction and historical review of electrokinetic applications, September 1987, Journal of Applied Electrochemistry Vol. 17, No. 5, pages 889-898.
TW	FY	J. C. Rife et al., Acousto- and electroosmotic microfluidic controllers, 1998, Microfluidic Devices and Systems, Vol. 3515, pages 125-135.
TW	FZ	Purnendu K Dasgupta et al., Electroosmosis: A Reliable Fluid Propulsion System for Flow Injection Analysis, 1994, Anal. Chem., Vol. 66, No. 11, pages 1792-1798.
TW	GA	Ray Beach et al., Modular Microchannel Cooled Heatsinks for High Average Power Laser Diode Arrays, April 1992, IEEE Journal of Quantum Electronics, Vol. 28, No. 4, pages 966-976.
TW	GB	Roy W. Knight et al., Optimal Thermal Design of Air cooled Forced Convection finned Heat Sinks - Experimental Verification, October 1992, IEEE Transactions on Components, Hybrids, and Manufacturing Technology, Vol. 15, No. 5 pages 754-760.
TW	GC	Y. Zhuang et al., Experimental study on local heat transfer with liquid impingement flow in two-dimensional micro-channels, 1997, Int. J. Heat Mass Transfer, Vol. 40, No. 17, pages 4055-4059.
TW	GD	D. Yu et al., An Experimental and Theoretical Investigation of Fluid Flow and Heat Transfer in Microtube, 1995, ASME / JSME Thermal Engineering Conference, Vol. 1, pages 523-530.
TW	GE	Xiaoqing Yin et al., Micro Heat Exchangers Consisting of Pin Arrays,1997, Journal of Electronic Packaging March 1997, Vol. 119, pages51-57.
TW	GF	X. Yin et al., Uniform Channel Micro Heat Exchangers, 1997, Journal of Electronic Packaging June 1997, Vol. 119, No. 2, pages 89-94.
TW	GG	Chun Yang et al., Modeling forced liquid convection in rectangular microchannels with electrokinetic effect, 1998, International Journal of Heat and Mass Transfer 41 (1998), pages 4229-4249.
TW	GH	Arel Weisberg et al., Analysis of microchannels for integrated cooling, 1992, Int. J. Heat Mass Transfer, Vol. 35, No. 10, pages 2465-2473.
TW	GI	Roger S. Stanley et al., Two-Phase Flow in Microchannels, 1997, DSE-Vol. 62/HTD-Vol. 354, MEMS, pages 143-152.
TW	GJ	B. X. Wang et al., Experimental investigation on liquid forced-convection heat transfer through microchannels, 1994, Int. J. Heat Mass Transfer, Vol. 37 Suppl. 1, pages 73-82.
TW	GK	Kambiz Vafai et al., Analysis of two-layered micro-channel heat sink concept in electronic cooling, 1999, Int. J. Heat Mass Transfer, 42 (1999), pages 2287-2297.

Examiner: D. MacCherry	Date Considered: 9/5/05

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		OTHER DOCUMENTS (Including Author, Title, Date, Relevant Pages, Place of Publication)
TW	GL	Gokturk Tune et al., Heat transfer in rectangular microchannels, 2002, Int. J. Heat Mass Transfer, 45 (2002), pages 765-773.
TW	GM	D. B. Tuckerman et al., High-Performance Heat Sinking for VLSI, 1981, IEEE Electron Device Letters, Vol. EDL-2, No. 5, pages 126-129.
TW	GN	Bengt Sunden et al., An Overview of Fabrication Methods and Fluid Flow and Heat Transfer Characteristics of Micro Channels, pages 3-23.
TW	GO	David S. Shen et al., Micro Heat Spreader Enhance Heat Transfer in MCMs, 1995, IEEE Multi-Chip Module Conference, pages189-194.
TW	GP	S. Sasaki et al., Optimal Structure for Microgrooved Cooling Fin for High-Power LSI Devices, Electronic Letters, December 4, 1986, Vol 22, No. 25.
TW	GQ	Vijay K. Samalam, Convective Heat Transfer in Microchannels, September 1989, Journal of Electronic Materials, Vol. 18, No. 5, pages 611-617.
TW	GR	Sanjay K. Roy et al., A Very High Heat Flux Microchannel Heat Exchanger for Cooling of Semiconductor Laser Diode Arrays, 1996, IEEE Transactions on components, packaging, and manufacturing technology-part B, Vol. 19, No. 2, pages 444-451.
TW	GS	Charlotte Gillot et al., Integrated Single and Two-Phase Micro Heat Sinks Under IGBT Chips, IEEE Transactions on Components and Packaging Technology, Vol. 22 No. 3, September 1999, pages 384-389.
TW	GT	X.F. Peng et al., "Enhancing the Critical Heat Flux Using Microchanneled Surfaces", Enhanced Heat Transfer, 1998, Vol. 5 pp. 165-176.
TW	GU	H. Krumm "Chip Cooling", IBM Technical Disclosure Bulletin, Vol. 20, No. 7, December 1977, pg. 2728.
TW	GV	Jae-Mo Koo et al., "Modeling of Two-Phase Microchannel Heat Sinks for VLSI Chips", Mech. Eng. Depart. of Stanford University, pp. 422-426.
	GW	
	GX	
	GY	
	GZ	
	HA	
	HB	
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	HD	
	HE	
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Examiner: J. Walberg	Date Considered: 8/5/05

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ELECTRONIC INFORMATION DISCLOSURE STATEMENT

Electronic Version v1.8
Stylesheet Version v1.8.0

Title of Invention	DECOUPLED SPRING-LOADED MOUNTING APPARATUS AND METHOD OF MANUFACTURING THEREOF

Application Number: 10/680324 *10/680324*
Confirmation Number: 5449
First Named Applicant: James Shook
Attorney Docket Number:
Search string: (5514906 or 5544696 or 5548605 or 5575929 or 5579828 or 5585069 or 5641400 or 5692558 or 5696405 or 5703536 or 5704416 or 5727618 or 5763951 or 5774779 or 5800690 or 5801442 or 5835345 or 5836750 or 5858188 or 5863708 or 5869004 or 5870823 or 5874795 or 5876655 or 5880017 or 5880524 or 5901037 or 5936192 or 5940270 or 5942093 or 5964092 or 5965001 or 5965813 or 5978220 or 5997713 or 5998240 or 6007309 or 6010316 or 6013164 or 6019882 or 6054034 or 6068752 or 6090251 or 6096656 or 6100541 or 6101715 or 6119729 or 6126723 or 6129145 or 6131650).pn.

US Patent Documents

Note: Applicant is not required to submit a paper copy of cited US Patent Documents

Init	Cite No.	Patent No.	Date	Patentee	Kind	Class	Subclass
TW	1	5514906	1996-05-07	Love et al.			
TW	2	5544696	1996-08-13	Leland			
TW	3	5548605	1996-08-20	Benett et al.			
TW	4	5575929	1996-11-19	Yu et al.			
TW	5	5579828	1996-12-03	Reed et al.			
TW	6	5585069	1996-12-17	Zanzucchi et al.			
TW	7	5641400	1997-06-24	Kaltenbach et al.			

TW	8	5692558	1997-12-02	Hamilton et al.
TW	9	5696405	1997-12-09	Weld
TW	10	5703536	1997-12-30	Davis et al.
TW	11	5704416	1998-01-06	Larson et al.
TW	12	5727618	1998-03-17	Mundinger et al.
TW	13	5763951	1998-06-09	Hamilton et al.
TW	14	5774779	1998-06-30	Tuchinskiy
TW	15	5800690	1998-09-01	Chow et al.
TW	16	5801442	1998-09-01	Hamilton et al.
TW	17	5835345	1998-11-10	Staskus et al.
TW	18	5836750	1998-11-17	Cabuz
TW	19	5858188	1999-01-12	Soane et al.
TW	20	5863708	1999-01-26	Zanzucchi et al.
TW	21	5869004	1999-02-09	Parce et al.
TW	22	5870823	1999-02-16	Bezama et al.
TW	23	5874795	1999-02-23	Sakamoto
TW	24	5876655	1999-03-02	Fisher
TW	25	5880017	1999-03-09	Schwiebert et al.
TW	26	5880524	1999-03-09	Xie
TW	27	5901037	1999-05-04	Hamilton et al.
TW	28	5936192	1999-08-10	Tauchi
TW	29	5940270	1999-08-17	Puckett
TW	30	5942093	1999-08-24	Rakestraw et al.
TW	31	5964092	1999-10-12	Tozuka et al.
TW	32	5965001	1999-10-12	Chow et al.
TW	33	5965813	1999-10-12	Wan et al.
TW	34	5978220	1999-11-02	Frey et al.
TW	35	5997713	1999-12-07	Beetz, Jr. et al.
TW	36	5998240	1999-12-07	Hamilton et al.
TW	37	6007309	1999-12-28	Hartley
TW	38	6010316	2000-01-04	Haller et al.
TW	39	6013164	2000-01-11	Paul et al.

TW	40	6019882	2000-02-01	Paul et al.
TW	41	6054034	2000-04-25	Soane et al.
TW	42	6068752	2000-05-30	Dubrow et al.
TW	43	6090251	2000-07-18	Sundberg et al.
TW	44	6096656	2000-08-01	Matzke et al.
TW	45	6100541	2000-08-08	Nagle et al.
TW	46	6101715	2000-08-15	Fuesser et al.
TW	47	6119729	2000-09-19	Oberholzer et al.
TW	48	6126723	2000-10-03	Orost et al.
TW	49	6129145	2000-10-10	Yamamoto et al.
TW	50	6131650	2000-10-17	North et al.

Signature

Examiner Name	Date
D. Mayberry	8/5/05

OIPE JC35
MAY 27 2004
PATENT & TRADEMARK OFFICE

ELECTRONIC INFORMATION DISCLOSURE STATEMENT

Electronic Version v1.8
Stylesheet Version v1.8.0

Title of Invention	DECOUPLED SPRING-LOADED MOUNTING APPARATUS AND METHOD OF MANUFACTURING THEREOF

Application Number: 10/680324 *10/680324*
Confirmation Number: 5449
First Named Applicant: James Shook
Attorney Docket Number:
Search string: (3654988 or 3817321 or 3823572 or 3929154 or 4109707 or 4138996 or 4194559 or 4248295 or 4312012 or 4450472 or 4485429 or 4516632 or 4561040 or 4567505 or 4573067 or 4664181 or 4758926 or 4866570 or 4868712 or 4894709 or 4896719 or 4908112 or 4938280 or 5009760 or 5016138 or 5057908 or 5070040 or 5083194 or 5058627 or 5088005 or 5099311 or 5099910 or 5125451 or 5131233 or 5203401 or 5218515 or 5232047 or 5239200 or 5263251 or 5274920 or 5309319 or 5317805 or 5325265 or 5380956 or 5383340 or 5427174 or 5436793 or 5459099 or 5508234 or 5514832).pn.

US Patent Documents

Note: Applicant is not required to submit a paper copy of cited US Patent Documents

Init	Cite No.	Patent No.	Date	Patentee	Kind	Class	Subclass
TW	1	3654988	1972-04-11	Clayton, III			
TW	2	3817321	1974-06-18	von Cube et al.			
TW	3	3823572	1974-07-16	Cochran, Jr.			
TW	4	3929154	1975-12-30	Goodwin			
TW	5	4109707	1978-08-29	Wilson et al.			
TW	6	4138996	1979-02-13	Cartland			
TW	7	4194559	1980-03-25	Eastman			

TW	8	4248295	1981-02-03	Ernst et al.
TW	9	4312012	1982-01-19	Frieser et al.
TW	10	4450472	1984-05-22	Tuckerman et al.
TW	11	4485429	1984-11-27	Mittal
TW	12	4516632	1985-05-14	Swift et al.
TW	13	4561040	1985-12-24	Eastman et al.
TW	14	4567505	1986-01-28	Pease et al.
TW	15	4573067	1986-02-25	Tuckerman et al.
TW	16	4664181	1987-05-12	Sumberg
TW	17	4758926	1988-07-19	Herrell et al.
TW	18	4866570	1989-09-12	Porter
TW	19	4868712	1989-09-19	Woodman
TW	20	4894709	1990-01-16	Phillips et al.
TW	21	4896719	1990-01-30	O'Neill et al.
TW	22	4908112	1990-03-13	Pace
TW	23	4938280	1990-07-03	Clark
TW	24	5009760	1991-04-23	Zare et al.
TW	25	5016138	1991-05-14	Woodman
TW	26	5057908	1991-10-15	Weber
TW	27	5070040	1991-12-03	Pankove
TW	28	5083194	1992-01-21	Bartilson
TW	29	5058627	1991-10-22	Brannen
TW	30	5088005	1992-02-11	Ciaccio
TW	31	5099311	1992-03-24	Bonde et al.
TW	32	5099910	1992-03-31	Walpole et al.
TW	33	5125451	1992-01-30	Matthews
TW	34	5131233	1992-07-21	Cray et al.
TW	35	5203401	1993-04-20	Hamburgen et al.
TW	36	5218515	1993-06-08	Bernhardt
TW	37	5232047	1993-08-03	Matthews
TW	38	5239200	1993-08-24	Messina et al.
TW	39	5263251	1993-11-23	Matthews

TW	40	5274920	1994-01-04	Matthews
TW	41	5309319	1994-05-03	Messina
TW	42	5317805	1994-06-07	Hoopman et al.
TW	43	5325265	1994-06-28	Turlik et al.
TW	44	5380956	1995-01-10	Loo et al.
TW	45	5383340	1995-01-24	Larson et al.
TW	46	5427174	1995-06-27	Lomolino, Sr. et al.
TW	47	5436793	1995-07-25	Sanwo et al.
TW	48	5459099	1995-10-17	Hsu
TW	49	5508234	1996-04-16	Dusablon, Sr. et al.
TW	50	5514832	1996-05-07	Dusablon, Sr. et al.

Signature

Examiner Name	Date
T Matthews	8/5/05

OIPE JC58
MAY 27 2004
PATENT & TRADEMARK OFFICE

ELECTRONIC INFORMATION DISCLOSURE STATEMENT

Electronic Version v18

Stylesheet Version v18.0

Title of Invention	DECOUPLED SPRING-LOADED MOUNTING APPARATUS AND METHOD OF MANUFACTURING THEREOF

Application Number : 10/680324

Confirmation Number: 5449

First Named Applicant: James Shook

Attorney Docket Number:

Art Unit:

Examiner:

Search string: (0596062 or 2273505 or 4211208 or 6397932 or 20020075645).pn

Certification: This Information Disclosure Statement was submitted under the following conditions, which satisfies the requirement under 37 CFR 1.97(e). The filer certified:

That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement.

US Patent Documents

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init	Cite.No.	Patent No.	Date	Patentee	Kind	Class	Subclass
TW	1	0596062	1897-12-28	W. P. Firey			
TW	2	2273505	1942-02-17	R. R. Florian			
TW	3	4211208	1980-07-08	Lindner			
TW	4	6397932	2002-06-04	Calaman et al.	B1		

US Published Applications

Note: Applicant is not required to submit a paper copy of cited US Published Applications

init	Cite.No.	Pub. No.	Date	Applicant	Kind	Class	Subclass
TW	1	20020075645	2002-06-20	Kitano et al.	A1		

Signature

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D Wallberg	8/5/05

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TW	1	4203448	1980-05-20	Johnson et al.			
TW	2	4235285	1980-11-25	Johnson et al.			
TW	3	4345267	1982-08-17	Corman et al.			
TW	4	4716494	1987-12-29	Bright et al.			
TW	5	4978638	1990-12-18	Buller et al.			
TW	6	5397919	1995-03-14	Tata et al.			
TW	7	5886870	1999-03-23	Omori			
TW	8	6021045	2000-02-01	Johnson			
TW	9	6347036	2002-02-12	Yeager et al.	B1		
TW	10	6449157	2002-09-10	Chu	B1		
TW	11	6449162	2002-09-10	Corbin, Jr. et al.	B1		
TW	12	6459582	2002-10-01	Ali et al.	B1		

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Search string: (6014312).pn

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US Patent Documents

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init	Cite.No.	Patent No.	Date	Patentee	Kind	Class	Subclass
JW	1	6014312	2000-01-11	Schulz-Harder et al.			

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J. Walberg	8/5/05

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init	Cite.No.	Pub. No.	Date	Applicant	Kind	Class	Subclass
TW	1	20020121105	2002-09-05	McCarthy, Jr. et al.	A1		
TW	2	20030121274	2003-07-03	Wightman	A1		
TW	3	20040040695	2004-03-04	Chesser et al.	A1		
TW	4	20040089008	2004-05-13	Tilton et al.	A1		

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/TWalberg/	8/5/05

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TW	2	4235285	1980-11-25	Johnson et al.			
TW	3	4345267	1982-08-17	Corman et al.			
TW	4	4716494	1987-12-29	Bright et al.			
TW	5	4978638	1990-12-18	Buller et al.			
TW	6	5397919	1995-03-14	Tata et al.			
TW	7	5886870	1999-03-23	Omori			
TW	8	6021045	2000-02-01	Johnson			
TW	9	6347036	2002-02-12	Yeager et al.	B1		
TW	10	6449157	2002-09-10	Chu	B1		
TW	11	6449162	2002-09-10	Corbin, Jr. et al.	B1		
TW	12	6459582	2002-10-01	Ali et al.	B1		

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Attorney Docket Number:
Search string: (6146103 or 6154363 or 6159353 or 6174675 or 6176962 or 6186660 or 6210986 or 6216343 or 6221226 or 6227809 or 6234240 or 6238538 or 6277257 or 6301109 or 6313992 or 6317326 or 6321791 or 6322753 or 6324058 or 6337794 or 6351384 or 6388317 or 6400012 or 6406605 or 6415860 or 6417060 or 6424531 or 6443222 or 6444461 or 6457515 or 6495015 or 6537437 or 6543521 or 6553253 or 6572749 or 6588498 or 6591625 or 6632655 or 20010016985 or 20010024820 or 20010044155 or 20010045270 or 20010046703 or 20010055714 or 20020011330).pn.

US Patent Documents

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Init	Cite.No.	Patent No.	Date	Patentee	Kind	Class	Subclass
TW	1	6146103	2000-11-14	Lee et al.			
TW	2	6154363	2000-11-28	Chang			
TW	3	6159353	2000-12-12	West et al.			
TW	4	6174675	2001-01-16	Chow et al.	B1		
TW	5	6176962	2001-01-23	Soane et al.	B1		
TW	6	6186660	2001-02-13	Kopf-Sill et al.	B1		
TW	7	6210986	2001-04-03	Arnold et al.	B1		

Init	Cite.No.	Patent No.	Date	Patentee	Kind	Class	Subclass
TW	8	6216343	2001-04-17	Leland et al.	B1		
TW	9	6221226	2001-04-24	Kopf-Sill	B1		
TW	10	6227809	2001-05-08	Forster et al.	B1		
TW	11	6234240	2001-05-22	Cheon	B1		
TW	12	6238538	2001-05-29	Parce et al.	B1		
TW	13	6277257	2001-08-21	Paul et al.	B1		
TW	14	6301109	2001-10-09	Chu et al.	B1		
TW	15	6313992	2001-11-06	Hildebrandt	B1		
TW	16	6317326	2001-11-13	Vogel et al.	B1		
TW	17	6321791	2001-11-27	Chow	B1		
TW	18	6322753	2001-11-27	Lindberg et al.	B1		
TW	19	6324058	2001-11-27	Hsiao	B1		
TW	20	6337794	2002-01-08	Agonafer et al.	B1		
TW	21	6351384	2002-02-26	Darkoku et al.	B1		
TW	22	6388317	2002-05-14	Reese	B1		
TW	23	6400012	2002-06-04	Miller et al.	B1		
TW	24	6406605	2002-06-18	Moles	B1		
TW	25	6415860	2002-07-09	Kelly et al.	B1		
TW	26	6417060	2002-07-09	Tavkhelidze et al.	B1		
TW	27	6424531	2002-07-23	Bhatti et al.	B1		
TW	28	6443222	2002-09-03	Yun et al.	B1		
TW	29	6444461	2002-09-03	Knapp et al.	B1		
TW	30	6457515	2002-10-01	Vafai et al.	B1		
TW	31	6495015	2002-12-17	Schoeniger et al.	B1		
TW	32	6537437	2003-03-25	Galambos et al.	B1		
TW	33	6543521	2003-04-08	Sato et al.	B1		
TW	34	6553253	2003-04-22	Chang	B1		
TW	35	6572749	2003-06-03	Paul et al.	B1		
TW	36	6588498	2003-07-08	Reysin et al.	B1		
TW	37	6591625	2003-07-15	Simon	B1		
TW	38	6632655	2003-10-14	Mehta et al.	B1		

US Published Applications

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Init	Cite.No.	Pub. No.	Date	Applicant	Kind	Class	Subclass
TW	1	20010016985	2001-08-30	Insley et al.	A1		
TW	2	20010024820	2001-09-27	Mastromatteo et al.	A1		
TW	3	20010044155	2001-11-22	Paul et al.	A1		
TW	4	20010045270	2001-11-29	Bhatti et al.	A1		
TW	5	20010046703	2001-11-29	Burns et al.	A1		
TW	6	20010055714	2001-12-27	Centour-Rose et al.	A1		
TW	7	20020011330	2002-01-31	Insley et al.	A1		

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Examiner Name	Date
Teresa Walberg	8/5/05

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ELECTRONIC INFORMATION DISCLOSURE STATEMENT

Electronic Version v18
Stylesheet Version v18.0

Title of Invention	DECOUPLED SPRING-LOADED MOUNTING APPARATUS AND METHOD OF MANUFACTURING THEREOF

Application Number: 10/680324
Confirmation Number: 5449
First Named Applicant: James Shook
Attorney Docket Number:
Search string: (5514906 or 5544696 or 5548605 or 5575929 or 5579828 or 5585069 or 5641400 or 5692558 or 5696405 or 5703536 or 5704416 or 5727618 or 5763951 or 5774779 or 5800690 or 5801442 or 5835345 or 5836750 or 5858188 or 5863708 or 5869004 or 5870823 or 5874795 or 5876655 or 5880017 or 5880524 or 5901037 or 5936192 or 5940270 or 5942093 or 5964092 or 5965001 or 5965813 or 5978220 or 5997713 or 5998240 or 6007309 or 6010316 or 6013164 or 6019882 or 6054034 or 6068752 or 6090251 or 6096656 or 6100541 or 6101715 or 6119729 or 6126723 or 6129145 or 6131650).pn.

US Patent Documents

Note: Applicant is not required to submit a paper copy of cited US Patent Documents

init	Cite.No.	Patent No.	Date	Patentee	Kind	Class	Subclass
TW	1	5514906	1996-05-07	Love et al.			
TW	2	5544696	1996-08-13	Leland			
TW	3	5548605	1996-08-20	Benett et al.			
TW	4	5575929	1996-11-19	Yu et al.			
TW	5	5579828	1996-12-03	Reed et al.			
TW	6	5585069	1996-12-17	Zanzucchi et al.			
TW	7	5641400	1997-06-24	Kaltenbach et al.			
TW	8	5692558	1997-12-02	Hamilton et al.			
TW	9	5696405	1997-12-09	Weld			
TW	10	5703536	1997-12-30	Davis et al.			

TW	11	5704416	1998-01-06	Larson et al.
TW	12	5727618	1998-03-17	Mundinger et al.
TW	13	5763951	1998-06-09	Hamilton et al.
TW	14	5774779	1998-06-30	Tuchinskiy
TW	15	5800690	1998-09-01	Chow et al.
TW	16	5801442	1998-09-01	Hamilton et al.
TW	17	5835345	1998-11-10	Staskus et al.
TW	18	5836750	1998-11-17	Cabuz
TW	19	5858188	1999-01-12	Soane et al.
TW	20	5863708	1999-01-26	Zanzucchi et al.
TW	21	5869004	1999-02-09	Parce et al.
TW	22	5870823	1999-02-16	Bezama et al.
TW	23	5874795	1999-02-23	Sakamoto
TW	24	5876655	1999-03-02	Fisher
TW	25	5880017	1999-03-09	Schwiebert et al.
TW	26	5880524	1999-03-09	Xie
TW	27	5901037	1999-05-04	Hamilton et al.
TW	28	5936192	1999-08-10	Tauchi
TW	29	5940270	1999-08-17	Puckett
TW	30	5942093	1999-08-24	Rakestraw et al.
TW	31	5964092	1999-10-12	Tozuka et al.
TW	32	5965001	1999-10-12	Chow et al.
TW	33	5965813	1999-10-12	Wan et al.
TW	34	5978220	1999-11-02	Frey et al.
TW	35	5997713	1999-12-07	Beetz, Jr. et al.
TW	36	5998240	1999-12-07	Hamilton et al.
TW	37	6007309	1999-12-28	Hartley
TW	38	6010316	2000-01-04	Haller et al.
TW	39	6013164	2000-01-11	Paul et al.
TW	40	6019882	2000-02-01	Paul et al.
TW	41	6054034	2000-04-25	Soane et al.
TW	42	6068752	2000-05-30	Dubrow et al.
TW	43	6090251	2000-07-18	Sundberg et al.
TW	44	6096656	2000-08-01	Matzke et al.
TW	45	6100541	2000-08-08	Nagle et al.
TW	46	6101715	2000-08-15	Fuesser et al.
KV				

TW	47	6119729	2000-09-19	Oberholzer et al.
TW	48	6126723	2000-10-03	Drost et al.
TW	49	6129145	2000-10-10	Yamamoto et al.
TW	50	6131650	2000-10-17	North et al.

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Examiner Name	Date
D. Wallberg	9/5/05

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Search string: (3654988 or 3817321 or 3823572 or 3929154 or 4109707 or 4138996 or 4194559 or 4248295 or 4312012 or 4450472 or 4485429 or 4516632 or 4561040 or 4567505 or 4573067 or 4664181 or 4758926 or 4866570 or 4868712 or 4894709 or 4896719 or 4908112 or 4938280 or 5009760 or 5016138 or 5057908 or 5070040 or 5083194 or 5058627 or 5088005 or 5099311 or 5099910 or 5125451 or 5131233 or 5203401 or 5218515 or 5232047 or 5239200 or 5263251 or 5274920 or 5309319 or 5317805 or 5325265 or 5380956 or 5383340 or 5427174 or 5436793 or 5459099 or 5508234 or 5514832).pn.

US Patent Documents

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init	Cite.No.	Patent No.	Date	Patentee	Kind	Class	Subclass
JW	1	3654988	1972-04-11	Clayton, III			
JW	2	3817321	1974-06-18	von Cube et al.			
JW	3	3823572	1974-07-16	Cochran, Jr.			
JW	4	3929154	1975-12-30	Goodwin			
JW	5	4109707	1978-08-29	Wilson et al.			
JW	6	4138996	1979-02-13	Cartland			
JW	7	4194559	1980-03-25	Eastman			
JW	8	4248295	1981-02-03	Ernst et al.			
JW	9	4312012	1982-01-19	Frieser et al.			
JW	10	4450472	1984-05-22	Tuckerman et al.			

TW	11	4485429	1984-11-27	Mittal
TW	12	4516632	1985-05-14	Swift et al.
TW	13	4561040	1985-12-24	Eastman et al.
TW	14	4567505	1986-01-28	Pease et al.
TW	15	4573067	1986-02-25	Tuckerman et al.
TW	16	4664181	1987-05-12	Sumberg
TW	17	4758926	1988-07-19	Herrell et al.
TW	18	4866570	1989-09-12	Porter
TW	19	4868712	1989-09-19	Woodman
TW	20	4894709	1990-01-16	Phillips et al.
TW	21	4896719	1990-01-30	O'Neill et al.
TW	22	4908112	1990-03-13	Pace
TW	23	4938280	1990-07-03	Clark
TW	24	5009760	1991-04-23	Zare et al.
TW	25	5016138	1991-05-14	Woodman
TW	26	5057908	1991-10-15	Weber
TW	27	5070040	1991-12-03	Pankove
TW	28	5083194	1992-01-21	Bartilson
TW	29	5058627	1991-10-22	Brannen
TW	30	5088005	1992-02-11	Ciaccio
TW	31	5099311	1992-03-24	Bonde et al.
TW	32	5099910	1992-03-31	Walpole et al.
TW	33	5125451	1992-01-30	Matthews
TW	34	5131233	1992-07-21	Cray et al.
TW	35	5203401	1993-04-20	Hamburgen et al.
TW	36	5218515	1993-06-08	Bernhardt
TW	37	5232047	1993-08-03	Matthews
TW	38	5239200	1993-08-24	Messina et al.
TW	39	5263251	1993-11-23	Matthews
TW	40	5274920	1994-01-04	Matthews
TW	41	5309319	1994-05-03	Messina
TW	42	5317805	1994-06-07	Hoopman et al.
TW	43	5325265	1994-06-28	Turlik et al.
TW	44	5380956	1995-01-10	Loo et al.
TW	45	5383340	1995-01-24	Larson et al.
TW	46	5427174	1995-06-27	Lomolino, Sr. et al.

TW	47	5436793	1995-07-25	Sanwo et al.
TW	48	5459099	1995-10-17	Hsu
TW	49	5508234	1996-04-16	Dusablon, Sr. et al.
TW	50	5514832	1996-05-07	Dusablon, Sr. et al.

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/J. Wallberg/	8/5/05

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